

Amendments to the Claims:

1. (Currently amended) An optical pick-up actuator ~~including~~ comprising:
a lens holder ~~having~~ for housing an objective lens; ~~and~~
a tracking system for moving the lens holder in a first plane; ~~and~~
a focusing coils system for moving the lens holder in a second plane approximately perpendicular to the first plane;

a an elongated frame which is connected to a predetermined fixed end portion through a shaft and has having first and second opposite ends, said frame comprising a suspension a support means connected to said first and second opposite ends for supporting said lens holder in a first suspended state with respect to the first plane; and

a magnetic system circuit for tilting motion which drives said lens holder in a predetermined direction other than focusing and tracking directions in operational relationship with the first and second opposite ends of the frame, such that the magnetic system generates a magnetic field and at least the first end of the frame moves within the magnetic field to cause the frame to rotate about an elongated shaft running through the frame's first axis positioned between said first and second opposite ends of the frame, causing the support means to rotate the lens holder about the first axis to a second suspended state with respect to the first plane.

2. (Currently amended) ~~An~~ The optical pick-up actuator of claim 1, wherein said magnetic ~~circuit system for tilting motion generates~~ comprises first and second magnets such that in the first suspended state, each of said first and second magnets is respectively disposed opposite said first and second ends of the frame to generate an the magnetic field, the optical pick-up actuator further comprising:

at least one of a first coil disposed at the first end of the frame; and

a second coil disposed at the second end of the frame;

wherein said at least one of the first and the second coils when exposed to a current move within said magnetic field, in response to an applied electromotive force, thereby causing the frame to rotate about the shaft positioned along the first axis independent from that of the magnetic circuit for tracking and focusing and drives said lens holder in said predetermined direction other than the focusing and tracking directions by driving said frame.

3. (Currently amended) ~~An~~ The optical pick-up actuator of claim 1, wherein said frame is driven in magnetic fields for tilt motion such that said lens holder is driven in a predetermined direction attached to a yoke via the elongated shaft.

4. (Currently amended) ~~An~~ The optical pick-up actuator of claim 1, wherein said magnetic circuit for tilting motion is provided with system comprises at least one pairs of coil attached to an end of the frame- and one magnet means for generating at the magnetic fields such that said frame is driven in said rotates in a predetermined first direction about the shaft positioned along the first axis in response to according to the an electric currents flowing along in said coil means, in a first direction.

5. (Currently amended) ~~An~~ The optical pick-up actuator of claim 4, wherein said frame is driven in tilt motion through said shaft the frame rotates in a second direction about the shaft in response to the electric current flowing in said coil, in a second direction.

6. (Currently amended) ~~An~~ The optical pick-up actuator of claim 15, wherein said shaft is supported by a bearing means as it runs through the frame's first axis..

7. (Currently amended) ~~An~~ The optical pick-up actuator of claim 5 1, wherein said shaft is made of a rigid material.

8. (Currently amended) ~~An~~ The optical pick-up actuator of claim 5 1, wherein said predetermined end portion is a yoke the support means comprises a plurality of biasing members to allow for flexible support of the lens holder in a suspended state.

9. (Currently amended) ~~An~~ The optical pick-up actuator of claim 1, wherein said tilt motion occurs in radial and/or tangential direction(s) further comprising a second rotating means for rotating the lens holder about a second axis approximately perpendicular to the first axis.

10. (Currently amended) ~~An~~ The optical pick-up actuator of claim 1, wherein said frame is elastically supported onto by a damper means made of rubber material.

11. (Cancel) An optical pick-up actuator including:
a lens holder suspended in a magnetic field by a suspension wire and having tracking and focusing coils and objective lens;

a frame which is connected to a predetermined fixed end portion through a shaft and has a suspension means for supporting said lens holder; and

a magnetic circuit for tilting motion comprised of a coil means for tilting motion mounted at both end portion of said frame and a magnet means cooperatively provided with said coil means for tilting motion thereby bending and twisting said shaft.

12. (Cancel) An optical pick-up actuator of claim 11, wherein said shaft is made of a rigid material.

13. (Cancel) An optical pick-up actuator of claim 11, wherein said tilt motion occurs in radial and/or tangential direction(s).

14. (Cancel) An optical pick-up actuator of claim 11, wherein said frame is elastically supported onto a damper means made of rubber material.

15. (Cancel) An optical pick-up actuator of claim 11, wherein said predetermined end portion is a yoke.

16. (Cancel) An optical pick-up actuator of claim 10, wherein said shaft is supported by a bearing means.

17. (New) An optical pick-up system comprising:
a lens holder for housing an objective lens;
a vertical and horizontal moving system for moving the lens holder in first and second planes, wherein said first and second planes are approximately perpendicular;
a frame having first and second opposite ends;
first and second supportive braces, each respectively extending from first and second opposite ends of the frame for supporting said lens holder in a first suspended state with respect to the first plane, and
an electromagnetic mechanism comprising:
first and second coils, respectively connected to said first and second opposite ends of the frame; and
first and second magnets respectively located opposite said first and second coils;

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wherein the first and second magnets generates at least a magnetic field to interact with a current flowing in said first and second coils such that an electromagnetic force is generated as a result of said interaction to move said first and second ends of the frame within the magnetic field.

18. (New) The optical pick-up system of claim 17, wherein the electromagnetic force is translated into a rotational movement upon acting on the first and second ends of the frame to cause the frame to rotate about an elongated shaft running through the frame's first axis positioned between said first and second opposite ends of the frame.

19. (New) The optical pick-up system of claim 18, wherein the rotational movement of the frame is translated to the lens holder via the first and second supportive braces to rotate the lens holder about the first axis to a second suspended state with respect to the first plane.

20. (New) The optical pick-up system of claim 18, wherein said frame is attached to a yoke via the elongated shaft.
